

Department of Physiology and Pharmacology
Physiology and Pharmacology 3000e

Course outline for 2020/2021



Although this academic year might be different, Western University is committed to a **thriving campus**. We encourage you to check out the [Digital Student Experience](#) website to manage your academics and well-being. Additionally, the following link provides available resources to support students on and off campus: <https://www.uwo.ca/health/>.

1. Technical Requirements:



Stable internet connection



Laptop or computer



Working microphone



Working webcam

2. Course Overview and Important Dates:



Delivery Mode	Dates	Time
online	Tuesday and Wednesday	1:30 to 4:30

*Details about design and delivery of the course are listed below in Section 4

Classes Start	Reading Weeks	Classes End	Study day(s)	Exam Period
September 9	November 2 - 8	December 9	December 10	December 11 - 22
January 4	February 13 - 21	April 5	April 6 and 7	April 8 - 30

*November 30, 2020: Last day to drop a full course and full-year half course without penalty

3. Contact Information



Course Coordinator	Contact Information
Tom Stavraky	Tom.stavraky@schulich.uwo.ca

Additional Course Coordinators	Contact Information
Dr. Anita Woods	Anita.Woods@uwo.ca
Dr. Angela Beye	Abeye2@uwo.ca

4. Course Description and Design

Almost all our knowledge of physiology and pharmacology is based on the results of laboratory experiments. It was through carefully designed experiments that most of the information presented in lecture (Physiology 3120, 3140a and Pharmacology 3620) was obtained. The same experimental approach is being used to solve the many remaining mysteries about how the body works and how diseases are treated with medications. We believe that to thoroughly understand the science of physiology and pharmacology, one must understand the experimental basis. This course is targeted at learning the scientific method along with data analysis, which is applied in both disciplines of physiology and pharmacology. Therefore, the laboratory exercises are a fundamental part of the study of physiology and/or pharmacology.

Overall Objectives: These laboratory exercises will

1. illustrate the use of the scientific method, and the nature, complex and endless variability in scientific research.
2. demonstrate the physiological/pharmacological processes studied in class as they apply to a living organism or cell.
3. emphasize the limitations that exist in the methods used in scientific investigation and appreciate as science students, that one must continue to critically evaluate the material presented in lectures and textbooks.

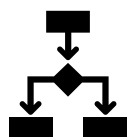
Prerequisites: Biochemistry 2280A; either Chemistry 2213A or 2273A; one of Physics 1028A/B, 1301A/B or 1501A/B and one of Physics 1029A/B, 1302A/B or 1502A/B; and 1.0 course from: Applied Mathematics 1201A/B, 1413, Calculus 1000A/B or 1500A/B, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B. A minimum average of 75% in the previous year is required. Open only to students who are registered in Years 3 or 4.

Corequisite(s):

Antirequisites: The former Physiology 3130z or Pharmacology 3580z.

Pre-or Corequisite(s): Either Physiology 3120 or Pharmacology 3620.

Extra Information: 3 laboratory hours, 1.0 course.



Senate regulation regarding the student's responsibility regarding prerequisites:

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Mode	Dates	Time	Frequency
Virtual synchronous	Tues or Wed	3 hrs	weekly
Virtual asynchronous	TBA		

Asynchronous pre-work must be completed prior to synchronous sessions when required

Attendance at synchronous sessions is required and mandatory

A recording will be provided for synchronous sessions when possible

All course material will be posted to OWL: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and discussed with the class.

If students need assistance, they can seek support on the [OWL Help page](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

[Google Chrome](#) or [Mozilla Firefox](#) are the preferred browsers to optimally use OWL; up you're your browsers frequently. Students interested in evaluating their internet speed, please click [here](#).

5. Learning Outcomes

Upon successful completion of this course, students will be able to:



1. develop a hypothesis and design an experiment with appropriate controls to test the hypothesis
2. organize, analyze and interpret scientific data, using appropriate experimental and mathematical tools
3. select the correct statistical test and apply it to a given data set
4. communicate experimental findings, data and concepts effectively to a diverse audience utilizing a range of formats such as laboratory reports, scientific posters and oral presentations
5. work and learn in both individual and collaborative ways, with others of diverse abilities
6. demonstrate an ethical approach to physiological and pharmacological research

6. Course Content and Schedule



Week	Dates	Topic	Instructor
1	Sept 9 – 13	No Labs	Multiple Instructors and/or TAs
2	Sept 14 – 20	Rot 1, wk 1 - Welcome	“
3	Sept 21 – 27	Rot 1, wk 2: Hypothesis and exp design work	“
4	Sept 28 – Oct 4	Rot 1 wk 3: Exp, hypothesis design	“
5	Oct 5 – 11	Rot 1, wk 4: Final hypo and exp design	“
6	Oct 12 – 18	Rot 1, wk 5: data analysis	“
7	Oct 19 – 25	Ro 1, wk 6: data analysis, go over report guidelines	“
8	Oct 26 – Nov 1	Rot 1, wk 7: feedback and writing time	“
9	Nov 2 – 8	Reading Week	N/A
10	Nov 9 – 15	Rot 2, wk 1: Exp background and hypothesis generation	“
11	Nov 16 – 22	Rot 2, wk 2: finalize hypo and exp design	“
12	Nov 23 – 29	Rot 2, wk 3: data analysis, go over poster guidelines	“

13	Nov 30 – Dec 6	Rot 2, wk 4: work on poster	“
14	Dec 7 – 9	Rot 2, wk 5 poster presentation	“
15	Jan 4 – 10	Rot 3, wk 1: Exp background and hypo generation	“
16	Jan 11 – 17	Rot 3, wk 2: finalize hypo and exp design	“
17	Jan 18 – 24	Rot 3, wk 3: Data analysis	“
18	Jan 25 – 31	Rot 3, wk 4: data analysis, go over report guidelines	“
19	Feb 1 – 7	Rot 3, wk 5: work on 5 min video	“
20	Feb 8 – 14	Rot 3, wk 6: writing feedback	“
21	Feb 15 – 21	Reading Week	N/A
22	Feb 22 – 28	Rot 4, wk 1: Exp background and hypo generation	“
23	Mar 1 – 7	Rot 4, wk 2: finalize hypo and exp design	“
24	Mar 8 – 14	Rot 4, wk 3: data analysis	“
25	Mar 15 – 21	Rot 4, wk 4: prep for presentation	“
26	Mar 22 – 28	Rot 4, wk 5: Presentations	“
27	Mar 29 – Apr 4	No labs	“
28	Apr 5	Classes end	“

7. Online Participation and Engagement



- Students are expected to participate and engage with content as much as possible
- Students can participate during online sessions

8. Evaluation

Below is the evaluation breakdown for the course. Any deviations will be communicated.

Assessment	Format	Weighting	Due Date
Online serial dilution activity	Online assignment	5%	Monday, Sept 21 st at 6 PM
Online stats module	Online assignment	5%	Monday, Sept 28 th at 6 PM
Rotation 1 short report	Written assignment	15%	Monday, Nov 16 th by 9 AM
Rotation 2 poster presentation	Online poster presentation	20%	Tue/Wed Dec 8/9 during lab time
Rotation 2 lay summary	Written assignment	5%	Sun, Nov 29 th by 11:59 PM
Rotation 3 5-min video	Online video assignment	5%	Fri, Feb 12 th by 4 PM
Rotation 3 long report	Written report	25%	Mon, Feb 22 at 9 AM
Rotation 4 online presentations	Online oral presentations	20%	Tue/Wed March 23/24 during lab time



- Written assignments will be submitted to Turnitin (statement in policies below)
- Students will have the ability to submit an unlimited number of times to check writing to Turnitin using a draft checker on OWL. Submission to the actual assignment can only be made once when confident with the writing originality.
- Rubrics will be used to evaluate assessments and will be posted with the instructions
- After an assessment is returned, students must wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days

Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Information about late or missed evaluations:

- Late assessments without a self-reported absence or approved documentation sent to academic counselling will be subject to a late penalty 10%/day
- Late assessments with a self-reported absence should be submitted **within 24 hours** of submission of the last day of the self-report
- An assessment cannot be submitted after it has been returned to the class; The weight will be transferred evenly over the other assessments

9. Communication:

- Students should check the OWL site every 24 – 48 hours
- Emails will be monitored daily; students will receive a response in 24 – 48 hours
- This course will use Zoom and/or Microsoft Teams for discussions



10. Office Hours:

- Office hours will be held remotely using Zoom or MS Teams by appointment
- Students will be able to sign up for an appointment using via email



11. Resources

- All resources will be posted in OWL



12. Professionalism & Privacy:

Western students are expected to follow the [Student Code of Conduct](#). Additionally, the following expectations and professional conduct apply to this course:

- Students are expected to follow online etiquette expectations provided on OWL
- All course materials created by the instructor(s) and TAs are copyrighted and cannot be sold/shared
- Recordings are not permitted (audio or video) without explicit permission
- Permitted recordings are not to be distributed
- Students will be expected to take an academic integrity pledge before some assessments
- All recorded sessions will remain within the course site or unlisted if streamed



13. How to Be Successful in this Class:

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.

1. Invest in a planner or application to keep track of your courses. Populate all your deadlines at the start of the term and schedule time at the start of each week to get organized and manage your time.
2. Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
3. Follow weekly checklists created on OWL or create your own to help you stay on track.
4. Take notes as you go through the lesson material. Treat this course as you would a face-to-face course. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively than just reading or watching the videos.
5. Connect with others. Try forming an online study group and try meeting on a weekly



- basis for study and peer support.
6. Do not be afraid to ask questions. If you are struggling with a topic, check the online discussion boards or contact your instructor(s) and or teaching assistant(s).
 7. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.

14. Western Academic Policies and Statements

Absence from Course Commitments

[Policy on Academic Consideration for Student Absences](#)

If you are unable to meet a course requirement due to illness or other serious circumstances, you must seek approval for the absence as soon as possible. Approval can be granted either through a **self-reported absence** or via the **Academic Counselling** unit. Students have two self-reports to use throughout the academic year; absence from course commitments including tests, quizzes, presentations, labs, and assignments that are worth 30% or less can be self-reported. Self-reported absences cover a student for 48 hours (yesterday + today or today + tomorrow). Your instructor will receive notification of your consideration; however, you should contact your instructor immediately regarding your absence. Students are expected to submit missed work within 24 hours of the end of the 48-hour period. Please review details of the [university's policy on academic consideration for student absences](#).

If you have used both their self-reported absences or will miss more than 48 hours of course requirements, a Student Medical Certificate (SMC) should be signed by a licensed medical or mental health practitioner and you should contact academic counselling. Academic Counselling will be operating virtually this year and can be contacted at scibmsac@uwo.ca.

Accommodation for Religious Holidays

The policy on Accommodation for Religious Holidays can be viewed [here](#).

Special Examinations

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents. To provide an opportunity for students to recover from the circumstances resulting in a Special Examination, the University has implemented Special Examinations dates. These dates as well as other important information about examinations and academic standing can be found [here](#).

Academic Offences

"Scholastic offences are taken seriously, and students are directed [here](#) to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence.

Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Accessible Education (AE) at 661-2111 x 82147 for any specific question regarding an accommodation or review [The policy on Accommodation for Students with Disabilities](#).

Correspondence Statement

The centrally administered **e-mail account** provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner. You can read about the privacy and security of the UWO email accounts [here](#).

Turnitin and other similarity review software

All assignments will be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. Students will be able to view their results before the final submission. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and [Turnitin.com](#).

15. BMSUE Academic Policies and Statements

Copyright and Audio/Video Recording Statement

Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws. You must always ask permission to record another individual and you should never share or distribute recordings.

Rounding of Marks Statement

Across the Basic Medical Sciences Undergraduate Education programs, we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. **Final grades** on this course, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.4 becomes 74, and 74.5 becomes 75. Marks WILL NOT be bumped to the next grade or GPA, e.g. a 79 will NOT be bumped up to an 80, an 84 WILL NOT be bumped up to an 85, etc. The mark attained is the mark you achieved, and the mark assigned; requests for mark "bumping" will be denied.

16. Support Services

The following links provide information about support services at Western University.

[Academic Counselling \(Science and Basic Medical Sciences\)](#)

[Appeal Procedures](#)

[Registrarial Services](#)

[Student Development Services](#)

[Student Health Services](#)